## PATENT APPLICATION

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: MP0246

Ke HAN

Express Mail No. EU782142571US

Filed: Concurrently herewith

For:

OPTIMAL ONE-SHOT PHASE AND FREQUENCY ESTIMATION FOR TIMING

**ACQUISITION** 

## INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §§ 1.97 and 1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith.

The present Information Disclosure Statement is being filed concurrently with the application and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not

## INFORMATION DISCLOSURE STATEMENT

waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Date: July 16, 2003

Substitute for Form 1449 A & B/PTO				Com	Complete if Known		
Substitute for Form 1	447 A & B/1 10	•		Application Number			
INFO	<b>PRMATION</b>	DISCLOS	SURE	Confirmation Number			
STATEMENT BY APPLICANT			Filing Date	July 16, 2003			
				First Named Inventor	Ke HAN		
(use as many sheets as necessary)				Art Unit			
				Examiner Name		-	
Sheet	1.	of	1	Attorney Docket Number	MP0246		

Examiner Initials*	Cite No.1	Document Number		PATENT DOCU			
		Number	Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document		
		US 5,619,537		04/08/1997	Altes		
		US 6,064,703		05/16/2000	Cusani et al.		
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FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date	Name of Patentee or	
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)	MM-DD-YYYY	Applicant of Cited Document	Translation <sup>6</sup>
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		OTHER ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.					
		BERGMANS, Jan W.M., "Appendix 9C: Data-aided Maximum-likelihood one-shot phase estimator",					
		Digital Baseband Transmission and Recording, 1996, pp. 489-494, Kluwer Academic Publishers,					
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		LIU, Jingfeng et al., "Symbol Timing Recovery for Low-SNR Partial Response Recording Channels,"					
	:	Globecom Conference, 2002, 8 pp. Pittsburgh, Pennsylvania.					
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Examiner Signature	 	Date Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WPO Standard ST. 3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to indicate here if English language Translation is attached.